### Louisiana Department of Environmental Quality (LDEQ) Office of Environmental Services

#### STATEMENT OF BASIS

Cox Bay Compressor Station
BEPCO, LP
Port Sulphur, Plaquemines Parish, Louisiana
Agency Interest Number: 32666
Activity Number: PER20080001
Proposed Permit Number: 2240-00214-V3

#### I. APPLICANT

#### Company:

BEPCO, LP Two Lakeway Center – Suite 1900 3850 N Causeway Blvd Ste 1900 Metairie, LA 70002

#### **Facility:**

Cox Bay Compressor Station
Port Sulfur, Plaquemines Parish, Louisiana
Approximate UTM coordinates are 245.6 kilometers East and 3,261.9 kilometers
North in Zone 16

#### II. FACILITY AND CURRENT PERMIT STATUS

This is an oil and gas production facility. Crude oil and gas from the nearby South Barge Production Facility are directed to Cox Bay Compressor and Oil Facility. The oil is stored on-site until pumped to a marine barge for transfer and sales. Gas is compressed and then sent through a glycol contact tower for drying. High-pressure dry gas is used as fuel for the facility and for gas-lift purposes with the excess being sold by pipeline. The glycol dehydration unit is equipped with a glycol pump flash separator where its off-gas is used as fuel for the glycol burner and the relief line is piped to a continuous-burn flare system for combustion. Still column vapors are routed through a condensing unit where its off-gas is piped to the flare system. Fluids from various skids, diked areas, and tank bottoms are pumped to a 400 barrel fluids tank at the site. A high pressure flare tip is used for emergency purposes to combust gas from pressure releases. Various gas-operated pumps and insignificant storage tanks are also utilized at this facility.

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#### III. PROPOSED PROJECT/PERMIT INFORMATION

#### **Application**

A permit application and Emission Inventory Questionnaire, dated June 26, 2008, were submitted by BEPCO LP, requesting a Part 70 operating permit modification.

#### **Project**

The proposed permit modification makes the following changes:

- Delete the cooling tower pump (5-96-ICE-ES) and emission cap CAP 1.
- Add a gas compressor (39-080ICE-ES), a blowcase vessel (40-08-BV), generators (42-08-ICE-ES and 43-08-ICE-ES), and gas operated pumps (44-08-GOP and 45-08-GOP).
- Add an emission cap (CAP 2) for Generators 42-08-ICE-ES and 43-08-ICE-ES.
- Add a lube oil tank (41-08-41) to the Insignificant Activities list.
- Revise emission rates for several emission point sources based on the updated throughput rates, emission factors, and/or current facility conditions.

#### **Proposed Permit**

This permit will be a modification to Permit No. 2240-00214-V2, issued November 13, 2006, for above referenced facility.

#### **Permitted Air Emissions**

Estimated emissions from the facility in tons per year are as follows:

<b>Pollutant</b>	<u>Before</u>	<u>After</u>	<u>Change</u>
$PM_{10}$	3.77	4.25	+ 0.48
SO <sub>2</sub>	0.06	0.09	+ 0.03
$NO_X$	503.51	541.91	+ 38.40*
CO	166.26	208.91	+ 42.65*
VOC	40.77	70.62	+ 29.85

<sup>\*</sup>The increases are based on the potential emissions. The "reasonable possibility" standard is not required.

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#### IV REGULATORY ANALYSIS

The applicability of the appropriate regulations is straightforward and provided in the Specific Requirements section of the permit. Similarly, the Monitoring, Reporting and Recordkeeping necessary to demonstrate compliance with the applicable terms, conditions and standards are also provided in the Specific Requirements section of the permit.

#### Prevention of Significant Deterioration/Nonattainment Review

Potential emission increases due to the proposed project are not over any PSD significant level. Therefore, PSD review is not required.

#### **MACT Requirements**

This facility is a minor source of HAPs/TAPs and is not subject to any MACT requirement.

#### Air Quality Analysis

Emissions associated with the proposed modification were reviewed by the Air Quality Assessment Division to ensure compliance with the NAAQS and AAS. LDEQ did not require the applicant to model emissions.

#### **General Condition XVII Activities**

The facility will comply with the applicable General Condition XVII Activities emissions as required by the operating permit rule. However, General Condition XVII Activities are not subject to testing, monitoring, reporting or recordkeeping requirements. For a list of approved General Condition XVII Activities, refer to the Section VIII – General Condition XVII Activities of the permit.

#### Insignificant Activities

All Insignificant Activities are authorized under LAC 33:III.501.B.5. For a list of approved Insignificant Activities, refer to the Section IX – Insignificant Activities of the permit.

#### V. PERMIT SHIELD

No permit shield is requested.

#### VI. PERIODIC MONITORING

All monitoring requirements necessary to demonstrate compliance with the applicable terms, conditions and standards are provided in the Specific Requirements section of the permit.

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#### VII. GLOSSARY

Carbon Monoxide (CO) – A colorless, odorless gas, which is an oxide of carbon.

Maximum Achievable Control Technology (MACT) – The maximum degree of reduction in emissions of each air pollutant subject to LAC 33:III.Chapter 51 (including a prohibition on such emissions, where achievable) that the administrative authority, upon review of submitted MACT compliance plans and other relevant information and taking into consideration the cost of achieving such emission reduction, as well as any non-air-quality health and environmental impacts and energy requirements, determines is achievable through application of measures, processes, methods, systems, or techniques.

Hydrogen Sulfide  $(H_2S)$  – A colorless inflammable gas having the characteristic odor of rotten eggs, and found in many mineral springs. It is produced by the reaction of acids on metallic sulfides, and is an important chemical reagent.

New Source Review (NSR) – A preconstruction review and permitting program applicable to new or modified major stationary sources of air pollutants regulated under the Clean Air Act (CAA). NSR is required by Parts C ("Prevention of Significant Deterioration of Air Quality") and D ("Nonattainment New Source Review").

Nitrogen Oxides  $(NO_X)$  – Compounds whose molecules consist of nitrogen and oxygen.

Organic Compound – Any compound of carbon and another element. Examples: Methane ( $CH_4$ ), Ethane ( $C_2H_6$ ), Carbon Disulfide ( $CS_2$ )

Part 70 Operating Permit – Also referred to as a Title V permit, required for major sources as defined in 40 CFR 70 and LAC 33:III.507. Major sources include, but are not limited to, sources which have the potential to emit:  $\geq 10$  tons per year of any toxic air pollutant;  $\geq 25$  tons of total toxic air pollutants; and  $\geq 100$  tons per year of regulated pollutants (unless regulated solely under 112(r) of the Clean Air Act) (25 tons per year for sources in non-attainment parishes).

PM<sub>10</sub> – Particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers as measured by the method in Title 40, Code of Federal Regulations, Part 50, Appendix J.

Potential to Emit (PTE) – The maximum capacity of a stationary source to emit any air pollutant under its physical and operational design.

Prevention of Significant Deterioration (PSD) – A New Source Review permitting program for major sources in geographic areas that meet the National Ambient

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Air Quality Standards (NAAQS) at 40 CFR Part 50. PSD requirements are designed to ensure that the air quality in attainment areas will not degrade.

Sulfur Dioxide (SO<sub>2</sub>) - An oxide of sulfur.

Sulfuric Acid  $(H_2SO_4)$  – A highly corrosive, dense oily liquid. It is a regulated toxic air pollutant under LAC 33:III.Chapter 51.

Title V Permit – See Part 70 Operating Permit.

Volatile Organic Compound (VOC) – Any organic compound, which participates in atmospheric photochemical reactions; that is, any organic compound other than those, which the administrator of the U.S. Environmental Protection Agency designates as having negligible photochemical reactivity.